

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No.: 37945-0008

Applicant(s) Vivienne Frances COX *et al.*

RECEIVED

Appl. No.: 09/582,761

Examiner: D. Nguyen

SEP 23 2002

Filing Date: August 28, 2000

Art Unit: 1632

TECH CENTER 1600/2900

Title: NON-IDENTICAL GENES AND THEIR APPLICATION IN
IMPROVED MOLECULAR ADJUVANTS

Amendment and Request for Reconsideration under 37 C.F.R. §1.111

Commissioner for Patents
Washington, D.C. 20231

Sir:

Applicants herein respond to the Office Action mailed May 23, 2002 (Paper No. 14). Applicants also petition for a one-month extension of time, and provide the requisite fee herewith. Please debit any underpayments, or credit any overpayments, to firm deposit account no. 08-1641. Please amend the application as follows:

IN THE CLAIMS

Please cancel claims 22, 35-38 and 43-44 without prejudice or disclaimer. Please amend the claims to read as follows:

23. (Amended) A nucleic acid sequence encoding at least one autonomously folding polypeptide domain or at least one immunogenic polypeptide having greater than 30 amino acids, wherein the sequence comprises a linear concatamer of at least two non-identical DNA sequences, wherein the non-identical DNA sequences each encode the same amino acid sequence of said autonomously folding polypeptide domain or immunogenic polypeptide that is a ligand of complement receptor type 2 (CR2, CD21), and wherein the concatamer comprises a sequence encoding an oligomer of the

OK
for
encl

autonomously folding polypeptide domain or immunogenic polypeptide in a continuous reading frame.

24. (Amended) The nucleic acid sequence according to claim 23, wherein a single invariant cysteine codon has been added to a DNA sequence to encode a polypeptide derivative with a unique unpaired cysteine.
25. (Amended) The nucleic acid sequence according to claim 24, wherein the added cysteine codon is located at the 3' end of the sequence to encode a cysteine at the C-terminus of the polypeptide derivative.
26. (Amended) The nucleic acid sequence according to claim 23, wherein the concatamer is fused to one or more sequences encoding one or more antigens.
27. (Amended) The nucleic acid sequence according to claim 23, wherein the concatamer is fused to one or more sequences encoding one or more antigens and a single cysteine codon^{nas} has been added to or inserted in-frame in only one antigen coding sequence.
28. (Amended) The nucleic acid sequence according to claim 26, wherein the concatamer is fused to one sequence coding one antigen.
29. (Amended) The nucleic acid sequence according to claim 23, wherein the encoded polypeptide is the complement C3 fragment Cad, or a sub-fragment thereof.
30. (Amended) An expression vector comprising^{+h} a concatamer nucleic acid sequence according to claim 23 and regulatory or other sequences for expression of any oligomeric polypeptide encoded thereby.
32. (Amended) A method of making^{the} a concatamerised polypeptide, the method comprising expressing a concatamer according to claim 23 in a host cell; and isolating the expressed product.
41. (Amended) A pharmaceutical composition comprising a concatamer according to claim 23 and a physiologically acceptable excipient or carrier.